Data Sheet

Cerberus PRO Intelligent Voice Communication

Advanced fire-protection system with integrated voice evacuation

ARCHITECT AND ENGINEER SPECIFICATIONS

- Powerful, user-friendly intelligent voice-communication system
- Primary, regulated power
  - 300 Watts rated at 11.5 Amps
- Universal AC power input:
  - 120VAC or 240VAC
  - 50 / 60Hz @ 5.0A max.
- *SureWire*™ addressable-loop technology
  - Patented polarity-insensitive detection circuits
- Supports *FirePrint*™ detection applications
- Supports pre-action, deluge and Sinorix™ agent releasing for Models FV922 / FV924
  - Releasing-valve monitoring
  - Sprinkler Supervision
- Support of multiple command stations
  - Cerberus DMS Danger Management Station can monitor, control up to 64 Model FV922 / FV924 FACPs
  - Fully field programmable, via Windows® 7 laptop PC
- NEC 760 power-limited circuits
  - ®UL 864-compliant
- *Gas Alarm* events for CO detection, per NFPA 720
- ®UL Listed for fire [®UL864] and mass notification [®UL2572] in one (1) fire alarm control panel (FACP)
  - Model FV922 is the Cerberus PRO 252-point addressable intelligent voice communication system
  - Model FV924 is the Cerberus PRO 504-point addressable intelligent voice communication system
- ®UL 864 9th Edition Listed, ULC-S527 Listed

Typical Cerberus® PRO FV922 / FV924 control panel in a 3HU enclosure

Product Overview

The Cerberus PRO Intelligent Voice Communication from Siemens – Fire Safety, is a technologically advanced and highly addressable fire-with-voice system. Through the use of its unique multiprocessor 'Network' design – along with its ability to utilize intelligent detection devices – Cerberus PRO epitomizes a flexible and highly configurable fire-protection system with integrated voice evacuation.

Each Cerberus PRO fire-protection system with voice capability is easily accessible for operation: push-button soft keys; a backlit LCD screen, and a (4) four-way navigation push button are all located in the upper portion on the front of each panel.

Cerberus PRO fire-protection with voice systems are ideally suited for small and mid-market applications via each panel's capability of providing up to 252 (Model FV922) and 504-point (Model FV924) networkable, addressable points.

Used in correlation with this new, innovative series of panels from Siemens is a high-tech line of intelligent detectors. Compared to standardized detectors, the Multi-Criteria Fire / CO Detector [with ASA*technology*™], for instance, provides industry-leading microcomputer-chip technology tailored to specialized applications – such as carbon-monoxide detection. *SureWire*™ addressable-loop technology is also supported by Cerberus PRO.

Cerberus® PRO

Fire Safety Products

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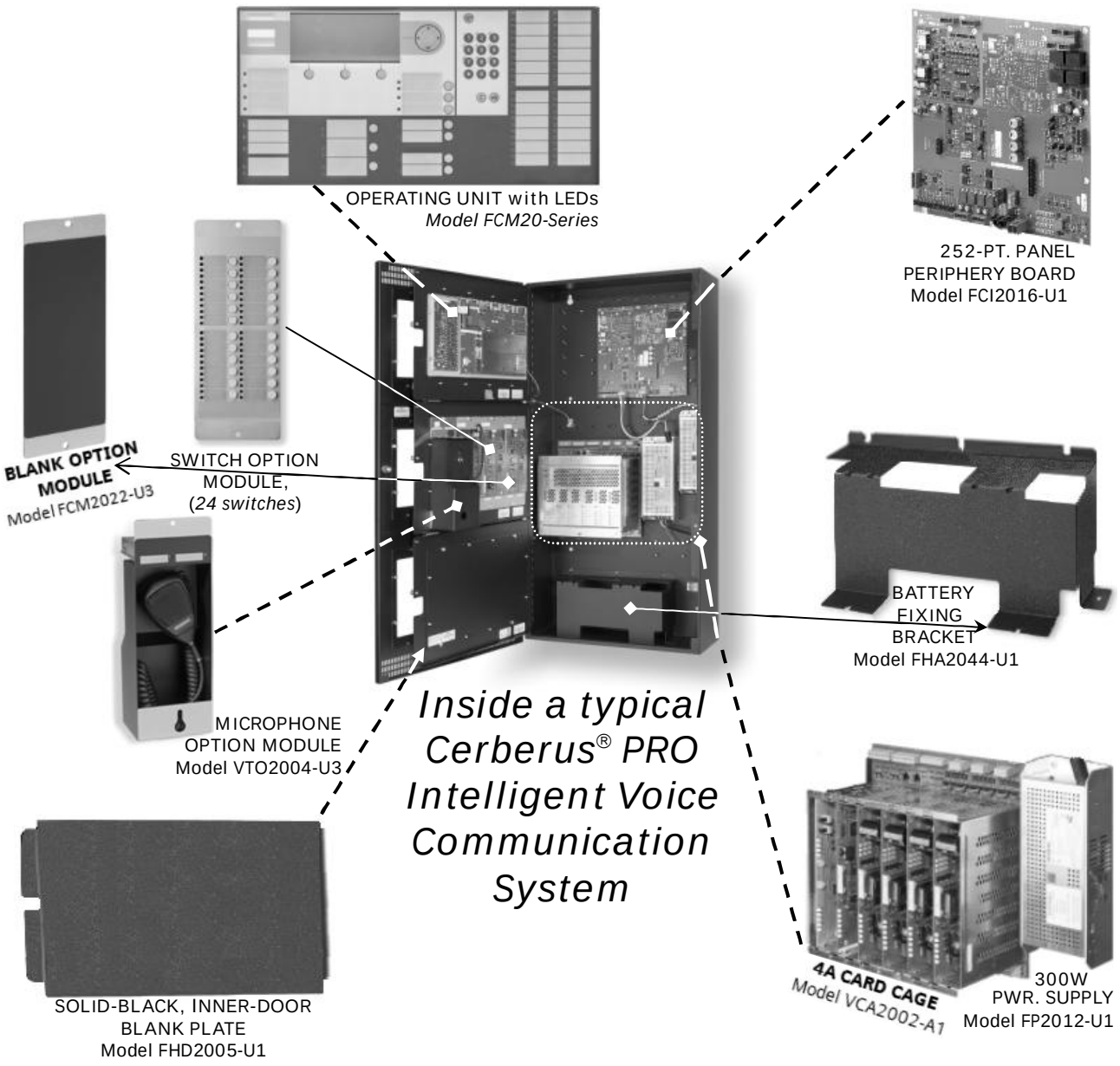
Voice System Overview

Mounting Diagram



Typical Cerberus PRO 252 / 504-Point Addressable Intelligent Voice-Communication System

252 / 504-point Cerberus PRO fire / voice system

The Cerberus PRO Model FV922 (252-point) / Model FV924 (504-point) intelligent voice-communication system is an addressable control panel designed to meet the protection needs of mid-size buildings.

This advanced fire-protection system with integrated voice evacuation offers features typically required in mid-size buildings in a package that is easy to install and competitively priced. Additionally, Models FV922 and FV924 are networkable panels.

A three-height-unit enclosure is used exclusively with Models FV922 and FV924. The following components comprise a complete three-height-unit (3HU) enclosure:

- Operating unit (Standard-type or with LEDs)
- Periphery board
- 300W power supply

Main System Components

- Operating unit (Standard-type or with LEDs)
- Periphery board
- 300W power supply

Standard Operating Unit

Operating Unit with LEDs

Operating Interface Unit

The Operating Interface Unit functions as the operator interface and central microprocessor for the Fire Terminal (Model FT924) and Cerberus PRO FACPs (Models FV922 and FV924).

Model FCM2018-U3, which is the Standard Operating Unit) or Model FCM2019-U3, the Operating Interface Unit with LEDs), each provides multi-use capabilities:

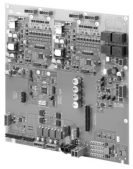
- Easily 'Acknowledge' events
- Quickly control the notification-appliance circuits (NACs) of the corresponding FACP
- Permit a manual reset of the respective system.

Detailed information about the nature and location of the events are displayed via a 2"–x– 4-3/4" (5.1 cm. –x– 12.1 cm.), backlit liquid-crystal-display (LCD) screen.

Each Operating Interface Unit contains the site-specific program configuration created in the custom-configuration software tool, 'Cerberus Works'.

The controller in each interface module provides all system logic and supervision. Additionally, the Operating Interface Units allow for connection to the Remote Peripheral Module (Model FCA2018-U1) and / or the Remote Terminal Displays (Models FT2014-U3 / R3; FT2015-U3 / R3).

Note: For applications in Canada that require the use of a Cerberus PRO operating unit with LEDs, Model FCM2035-U3 shall be ordered.



FCI2016-U1
[Periphery board for 252-point Cerberus PRO voice system]

FCI2017-U1
[Periphery board for 504-point Cerberus PRO voice system]

Periphery Boards

The periphery boards (Models FCI2016-U1 and FCI2017-U1) are integral components for operating the Cerberus PRO panels (Models FV922 and FV924). Each module operates and monitors input-device identity; as well as controls the signaling-line circuits that communicate with smoke detectors and other field devices (i.e. – C-NET).

Each periphery board is equipped with two (2) programmable 'Class B' (Style Y) or 'one (1) Class A' (Style Z) NAC, providing 24VDC, nominal at a 5A per circuit maximum of audible / visual notification appliances.

Periphery Boards – (continued)

The periphery boards mount directly on the enclosure backboxes of the Model FV922 and Model FV924 Cerberus PRO panels. Models FCI2016-U1/ FCI2017-U1 provide two (2) parallel auxiliary powered, short-circuit-protected connections (regulated 24VDC, 1.5A max) that supply power to external devices or modules.

300-Watt Power Supply
[Model FP2012-U1]

Power Supply Module

The 300-Watt power supply (Model FP2012-U1) provides primary, regulated (24VDC, nominal) power for normal operation to the Cerberus PRO 252 / 504-point addressable systems. Filtered and regulated, Model FP2012-U1 is rated 11.5 Amps at 24VDC, nominal.

Each 300-Watt power supply incorporates two (2) 6.3A replaceable, non-resettable slow-blow fuses on the primary input and includes a built-in AC-line filter for surge and noise suppression. Model FP2012-U1 mounts into a Cerberus PRO 252 / 504-point addressable panel enclosure, and there are no serviceable parts to be maintained.

Voice System Components

Voice System Card Cage
[Model VCA2002-A1]

Voice System Card Cage

The voice-system card cage (Model VCA2002-A1) is used to support the mounting and field wiring for the following cards used on a Model FV922 / FV924 Cerberus PRO FACP:

- the Voice CPU Card, Model VCC2001-A1 [supports one (1) CPU card]
- the Voice I/O Card, Model VCC2002-A1 [supports one (1) I/O Card]
- 25V / 70V Voice Amplifier Card, Model VCI2001-U1 [supports one (1) to four (4) 50W amplifier cards]

Up to six (6) card-cage slots are configured for use.

Voice System Components – (continued)

Voice System CPU Card
[Model VCC2001-A1]

Voice System CPU Card

Model VCC2001-A1 is a central-processing unit (CPU) card that controls and monitors all modules and functions for Cerberus PRO intelligent voice-communication FACPs. Model VCC2001-A1 mounts in a Model VCA2002-A1 card cage (positioned in the 2nd slot from the left), and works with the Voice I/O card (Model VCC2002-A1) to control the voice system.

In/ Out Voice System CPU Card
[Model VCC2002-A1]

In / Out Voice System Card

Model VCC2002-A1 is the Input / Output card for the Cerberus PRO intelligent voice-communication system.

Model VCC2002-A1 mounts in the Voice Card Cage (Model VCA2002-A1) — 1st slot on the left, and works with the Voice CPU Card (Model VCC2001-A1) to control a Cerberus PRO intelligent voice-communication system.

Two (2) local audio inputs (for microphones or external low-level audio signals), and one (1) low-level audio output (with all audio-signal wiring connected to the card cage) are supported by the In/Out Voice System CPU card.

Voice Amplifier Card, 25V / 70V
[Model VCI2001-U1]

Voice Amplifier (25 / 70 V) Card

Used in 'real time', emergency communication, the 50W amplifier card (Model VCI2001-U1) provides AC power between a Model FV922 / FV924 panel and a site's speaker system. Each 50W amplifier card mounts inside the Model VCA2002-A1 card cage – with all speaker-zone wiring connected to Model VCA2002-A1 card cage.

Up to four (4) Model VCI2001 amplifiers are supported in a 3-to1 backup, or 1-to-1 backup schematic on a single Cerberus PRO intelligent voice-communication system: configured as one (1), two (2) or three (3) main amplifiers, and one (1) or two (2) optional backup amplifiers. Amplifiers are mounted in the Model VCA2002-A1 card cage.

MoNET Connection Module
[Model FCA2031-A1]

MoNET Connection Module

The MoNET connection module is used for communication between a Model FCM20-series operating unit and a Voice CPU card (Model VCC2001-A1) in a given Cerberus PRO intelligent voice-communication panel.

MoNET (Model FCA2031-A1) can additionally provide in-system integration between an operating unit and a Modular Ethernet Switch (Model FN2012-A1 in each Cerberus PRO, non-voice FACP.

Model FCA2031-A1 mounts in Position #1 on a Cerberus PRO Model FCM20-series operating unit.

Microphone Option Module
[Model VTO2004-U3]

Microphone Option Module

The Microphone Option Module (Model VTO2004-U3) is used to provide live, non-pre-recorded voice communication on a Cerberus PRO intelligent voice-communication panel.

Model VTO2004-U3 can serve either as a main microphone installed in the main-system enclosure, or as a remote microphone in a remote enclosure.

Up to two (2) Model VTO2004-U3 microphones are supported for each Model FV922 / FV924 FACP.

Voice System Components – (continued)

Switch Option Module, (24 switches)
[Model VTO2001-U3]

Switch Option Module

The Switch Option Module (Model VTO2001-U3) is a system accessory used to add manual voice control on Cerberus PRO intelligent voice-communication FACPs.

Model VTO2001-U3 can either be configured for up to 24 function zones, or for up to 48 individual LEDs. Each upper portion of each zone contains one (1) set of BLUE, RED, GREEN, and YELLOW LEDs, while a zone's lower portion contains one (1) YELLOW -only LED.

Additionally – if no microphone is used – up to eight (8) Model VTO2001-U3 switch option modules can be used in a given three-eight-unit (3HU) enclosure (Model FHD2007-U3/R3).

100W Booster Amplifier
[Model EBA2004-A1]

Model FH2016-U1/R1
[Booster Amp Enclosure]

100W Booster Amplifier (and Enclosure)

As an option, the Model EBA2004-A1 Booster Amplifier is a main board that allows for expansion of speaker zones for additional power to a Cerberus PRO intelligent voice-communication system.

Model EBA2004-A1 consists of a single board with two (2) 50W amplifiers, one (1) built-in battery charger, and removable terminal blocks for all field wiring.

Battery Fixing Bracket
[Model FHA2044-U1]

Battery Fixing Bracket

The battery fixing bracket (Model FHA2044-U1) is specifically used in all Cerberus PRO intelligent voice-communication system configurations — housing and securing 33AH system battery sets, which provide auxiliary system power.

Each Model FHA2044-U1 bracket complies with seismic certification, pursuant to ASC / SEI 7-05, Section 13.2.2.

DIN rail kit

The optional DIN Rail Kit (Model FHA2031-U1), which also functions in intelligent voice- communication systems, mounts in the backbox of a 3HU enclosure, and provides connection between internal-system wiring and field wiring.

Model FV922 / FV924
[Typical Three-Height-Unit (3HU) enclosure]

Three-Height-Unit Enclosure

The three-height-unit (3HU) enclosure is the largest housing available for Cerberus PRO panels, and is used exclusively for voice-system applications.

Orderable in either red or black, the following components comprise a complete three-height-unit enclosure:

- One (1) backbox, (Model FHB2005-U1 / R1)
- One (1) inner door, (Model FHD2004-U1)
- One (1) clear lens, (Model FHD2006-U1)
- One (1) outer door, (Model FHD2007-U3 / R3)
- One (1) blank plate, (Model FHD2009-U1 / R1)

Notes: An enclosure cover (Model FHA2041-R1) is used to protect the ventilation holes found at the top of red-only, 3HU backboxes (Model FHB2005-R1).

Model FHA2041-R1 prevents condensation from entering the FACP, and consequently meets New York City code for uncovered ventilation holes on fire-systems enclosures.

Approximate size: 42" (106.7 cm.) high;
21" (53.3 cm.) wide,
and 7.75" (19.7 cm.) deep.

Model FHB2005-U1/R1
[Three-Height-Unit (3HU) Backbox]

Voice System Components – (continued)

Three-Height-Unit Backbox

The three-height-unit backbox is part of the Cerberus PRO intelligent voice-communication system hardware for use with 3HU system enclosures. Specifically, each backbox is used to fasten with a 3HU outer door.

Each 3HU backbox can be ordered in black (Model FHB2005-U1 or red (Model FHB2005-R1).

Approximate size: 42" (106.7 cm.) high;
21" (53.3 cm.) wide,
and 7.75" (19.7 cm.) deep.

Model FHD2007-U3/R3
[Three-Height-Unit (3HU) Outer Door]

Three-Height-Unit Outer Door

For each Model FV922 / FV924 FACP, one (1) red or black backbox supports one (1) equivalent red or black outer door. Each three-height-unit outer door contains three (3) horizontal openings in order for easy access to the system operating unit; voice system card cage, and battery brackets.

Clear Lens

The window (Model FHD2006-U1) is a rugged Lexan® lens that can be mounted to any of the rectangular cut-outs found on each Model FHD2007-series outer door.

Approximate size: 10.25" (26.04 cm.) high and 17" (43.2 cm.) wide

Three-Height-Unit Blank Plate

In lieu of using a Lexan clear lens, an installer has the option of using a 3HU blank plate, which covers empty spaces in a given row of a 3HU enclosure, (in place of any redundant operator interface switch and / or microphone option module).

Model FHA2043-U1/R1
[Three-Height-Unit (3HU) Enclosure Trim Kit]

Three-Height-Unit Enclosure Trim Kit

This optional trim kit is used to provide an aesthetically pleasing appearance of a 3HU enclosure when used in flush-mount applications. Each trim kit can be purchased in either red (Model FHA2043-R1) or black (Model FHA2043-U1), and comes unassembled in four (4) slats.

Inner Doors

There are two (2) inner doors available for Cerberus PRO system enclosures. The inner door, which is available exclusively in black, specifically stores the Standard Operating Unit, or the Operating Unit with LEDs.

Additionally, the Model FHD2004-U1 inner door supports one (1) system operating unit, or one (1) to four (4) LED option modules.

When less than four (4) LED option modules are used, the blank-option module (Model FCM2022-U3) covers unused module spaces in the inner door.

Approximate size: 13.25" (33.7 cm.) high and 20" (50.8 cm.) wide

Note: Model FHD2005-U1 is a solid-black, inner-door blank plate used to provide dead-front protection.

Modular Ethernet Switch
[Model FN2012-A1]

Modular Ethernet Switch

The Modular Ethernet Switch (Model FN2012-A1) serves as a network connector between Models FC922, FC924 and FT924 fire-only Cerberus PRO FACPs and with Model FV922 / FV924 Cerberus PRO intelligent voice-communication systems.

Panel-to-panel communication is transmitted via CAT5, single-mode fiber or multi-mode fiber. One (1) or two (2) Ethernet modules are supported by each Modular Ethernet Switch, which serves as a connector to:

- Model VN2001 for CAT5 connection (or better)
- Model VN2002 for multi-mode fiber connection
- Model VN2003 for single-mode fiber connection

Model FN2012-A1 mounts in the backbox of one-height-unit or two-height-unit enclosures, in place of a standard fiber module.

Voice System Components – (continued)

Electric Ethernet Module
[Model VN2001-A1]

Electric Ethernet Module

The Electric Ethernet Module (Model VN2001-A1) serves as a network connector between Siemens fire-only FACPs and with intelligent voice-communication systems.

Model VN2001-A1 mounts in either or both of:

- the Voice CPU Card, Model VCC2001-U1 [used in voice systems]
- the Modular Ethernet Switch, Model FN2012-A1 [for use in FACP-only connections]

Single-Mode Ethernet Module
[Model VN2003-A1]

Single-Mode Ethernet Module

The Single-Mode Ethernet Module (Model VN2003-A1) serves as a network connector between Siemens fire-only FACPs and with intelligent voice-communication panels, via single-mode fiber-optic cables.

Model VN2002-A1 mounts in either or both of:

- the Voice CPU Card, Model VCC2001 [used in voice systems]
- the Modular Ethernet Switch, Model FN2012-A1 [for use in FACP-only connections]

Multi-Mode Ethernet Module
[Model VN2002-A1]

Multi-Mode Ethernet Module

The Multi-Mode Ethernet Module (Model VN2002-A1) serves as a network connector between Siemens fire-only FACPs and with intelligent voice-communication panels, via multi-mode fiber-optic cables.

Model VN2002-A1 mounts in either or both of the following:

- the Voice CPU Card, Model VCC2001-U1 [used in voice systems]
- the Modular Ethernet Switch, Model FN2012-A1 [for use in FACP-only connections]

VoIP Module
[Model VCI2003-A1]

Voice-over-IP Module

The VOIP module (Model VCI2003-A1) is used to convert audio signals between analog and digital Voice-over-IP signals. This module is mounted to a connection point on the voice CPU card (Model VCA2001), and is required for all network voice applications.

For system configurations, the Voice CPU card provides voice-network support to the following:

- a VoIP Module (Model VCI2003-A1) [for Voice-over-IP conversion of audio signals]
- up to four (4) CAT5 connections, via the Electric Ethernet Module, Model VN2001-A1a single-mode (Model VN2003-A1) or a multi-mode (Model VN2002-A1) Ethernet module

Remote ('Class B') Terminal Board
(Model VTA2001-A1)

Remote ('Class B') Terminal Board

The Remote ('Class B') Terminal Board (Model VTA2001-A1) provides system support to the Cerberus PRO 24-Switch Option Module (Model VTO2001-U3) and Cerberus PRO Microphone Option Module (Model VTO2004-A1) when the aforementioned option modules function from a remote enclosure.

Model VTA2001-A1 terminal board, which mounts in a 1HU enclosure, serves as a central station for audio output, system communication and 24VDC power wiring from the Cerberus PRO intelligent voice-communication FACP on its network.
Plug-in connectors for the ribbon cables used on the 24-Switch Option Module (Model VTO2001-U3) and the Mic Option Module (Model VTO2004-A1) are also included on each 'Class B' board.

Cerberus PRO Fire Components

C-WEB Network Module
[Model FN2001-U1]

C-WEB Network Module

The C-WEB network module (Model FN2001-U1) is used to network up to 16 FACPs and the Fire Terminal (Model FT924), via the C-WEB system bus. The C-WEB network module is plugged into a Standard Operating Unit or an Operating Unit with LEDs.

Model FN2001-U1 supports 'peer-to-peer' networking between the following systems:

- Model FC922
- Model FC924
- Model FT924

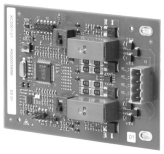
Model FN2001-U1 connects to system-bus inputs and outputs, and the module has ground-fault monitoring, as well as an integrated degrade-mode function.

Redundant networking is accomplished with one (1) network module [simple loop trouble] per panel. There is electrical isolation between the system bus and the FACP.

Leased-Line / City-Tie Module
[Model FCI2020-U1]

Leased-Line / City-Tie Module

The leased-line / city-tie module (Model FCI2020-U1) is used as an optional module, providing a local-energy output for municipal call-box connection. Model FCI2020-U1 also gives a reverse-polarity output for leased-line connection. Model FCI2020-U1 is installed on the periphery board for Cerberus PRO FACPs, respectively.



Releasing Module
[Model XCI2001-U1]

Releasing Module

The Cerberus PRO releasing module (Model XCI2001-U1) is an optional module that is connected to the peripheral boards (Models FCI2016-U1, FCI2017-U1), providing two (2) circuits of optional releasing, respectively.
Model XCI2001-U1 supports activation of releasing valves in pre-action / deluge systems (including double-interlock pre-action systems, or Sinorix engineered fire suppression systems). Model XCI2001-U1 supports only 'Class B' releasing circuits.

Remote Display Terminal
(with [3] three control buttons)

Remote Display Terminal
(with RS–485 interface)

The Remote Display Terminals (Models FT2014-U3 / R3 and FT2015-U3 / R3) are LED / LCD units that show the existing status of a Cerberus PRO 252 / 504-point system.

A LED will illuminate for any given *Alarm*, *Supervisory* and *Trouble* Cerberus PRO-system event. An LCD screen will give details of the event in alphanumeric form. The display screen can be scrolled to reveal additional events. Optional remote-system-control capabilities are also available.

When an event has been triggered to the Cerberus PRO panel, the LCD screen will show the following:

- Event type and zone
- Time of the event [only possible in a menu-driven function]
- Custom message for that zone
- Usage of the zone
- 'Unacknowledged' or 'Acknowledged' event

The display has a backlight feature that operates upon receiving any event information or when any operator buttons are pressed.

The Model FT2014-series display terminal has a button used to silence the local sounder. Meanwhile, the Model FT2015-series display terminal has three (3) control buttons for 'acknowledging' events; silencing audible circuits and resetting the system. Additionally, there are three (3) user-programmable buttons available. The Model FT2015-series has a key switch that enables the control buttons to operate.

The remote display terminals are remotely connected to the Cerberus PRO FACP, via the RS–485 interface. Cerberus PRO panels require the Model FCA2016-U1 RS–485 module to provide communication to the remote display terminals. Model FCA2016-U1 supports Style 4 or Style 6 wiring. Up to eight (8) modules can be supported on a RS–485 bus.

When used for connection to a municipal call box, the city-tie function supports *Alarm*-event transmission. When used for leased-line connection, the module supports two (2) leased telephone lines for transmitting *Alarm*, *Trouble* and *Supervisory* events.

Cerberus PRO Fire Components – (cont.'d)

Single-Mode / Multi-Mode Fiber-Optic Module

Single-Mode / Multi-Mode Fiber-Optic Module

The single-mode (Model FN2006-U1) / multi-mode (Model FN2007-U1) fiber-optic interface module can be used to transmit RS–485 communication for the Cerberus PRO FACP, as well as the Model FT924 Fire Terminal.

The single-mode / multi-mode fiber-optic module provides C-NET peer-to-peer network communication between the Cerberus PRO 252-point and 504-point fire systems.

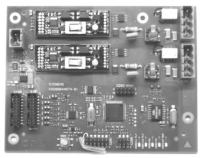
Models FN2006-U1 / FN2007-U1 require 24 Volts DC [nominal] power, and the Models FC922 or FC924 FACP serve as the source for this power requirement. Models FN2006-U1 / FN2007-U1 can also be powered from any ®UL Listed, regulated 24VDC power supply, such as the Siemens (Model PAD-series) Distributed Power Module & NAC Extender.

Models FN2006-U1 / FN2007-U1 can be mounted in a Cerberus PRO one-height-unit or two-height unit enclosure, and can operate in a daisy-chain configuration.

Two (2), high-quality duplex 9/125 fiber-optic cables and ST-style fiber connectors are used for connection between single-mode fiber-optic modules. The duplex fiber-optic cable has two (2) cables in a single shield that is similar to an electrical zip cord. When using single-mode fiber, each segment of the fiber network can be up to almost 10 miles (16.1 km).

For 'Class B' installations, each FACP or terminal at either end of the daisy chain use one (1) duplex cable for connection to the next networked panel or terminal. FACPs or terminals within the daisy chain require two (2) duplex cables: one (1) duplex cable for connection to the previous FACP, and one (1) duplex cable for connection to the next FACP.

For 'Class A' installations, each FACP or terminal requires two (2) duplex cables: one (1) duplex cable for connection to the previous FACP, and one (1) duplex cable for connection to the next FACP.



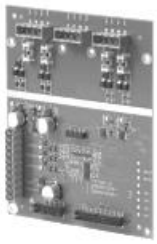
Digital Alarm
Communicator Transmitter
[Model FCA2015-U1]

Digital Alarm Communicator Transmitter

The Digital Alarm Communicator Transmitter (DACT) is used to provide communication between the Cerberus PRO FACPs (Models FV922 and FV924) and an off-premises remote monitoring station.

The Model FCA2015-U1 module mounts directly on the back enclosure and connects to the periphery boards. The DACT enables remote transmission of alarms and events via a public telephone line.

Model FCA2015-U1 supports two (2) lines and four (4) accounts, and can transmit serial information (including the address of the event) to the monitoring station. Any of the accounts can send *Alarm*, *Gas Alarm*, *Supervisory*, *Trouble*, *Reset*, or *Trouble*-restore data (or any combination) as required. Each DACT can perform the automatic 24-hour test required by NFPA, Chapter 4.



Fire Terminal Board
[Model FTI2001-U1]

Fire Terminal Board (and equipment)

The Fire Terminal (Model FT924) consists of the Fire Terminal Board (Model FTI2001-U1); the stores the Standard Operating Unit (or the Operating Unit with LEDs), and a one-height-unit enclosure.

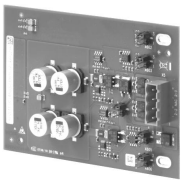
Each Model FT924 terminal contains one (1) backlit, 2" –x– 4-3/4" (5.1 cm. –x– 12.1 cm.) Video Graphics Array (VGA) monochrome LCD screen with LEDs for displaying system status. An audible will sound when there are 'unacknowledged' events on the system.

The display of each operating unit categorizes events by type, providing a separate event tab for *Alarm*, *Gas Alarm*, *Supervisory*, and *Trouble* events. The quantity of active events of each type is listed in each event tab. The display provides two (2) full lines of text message for each event.

Each event can have a 40-character custom message describing the location for a given event. In addition to the text message, the system displays the category of the active event: (e.g. – *Automatic Alarm*, *Water Flow*, *Manual*, etc.) – the category means more to responding officials than models.

The Fire Terminal Boards contain the site-specific program configuration which is created in the custom-configuration tool, 'Cerberus Works'.

Cerberus PRO Fire Components – (cont.'d)



NAC Expansion Module
[Model FCI2011-U1]

NAC Expansion Module

The NAC expansion module (Model FCI2011-U1) is an optional module that is connected to the peripheral boards (Models FCI2016-U1, FCI2017-U1), providing additional NACs to 252-point and 504-point systems, respectively.

One (1) 'Class A' or two (2) 'Class B' NACs are provided with the following Cerberus PRO systems:

- Model FV922 (252-point)
- Model FV924 (504-point)

Each NAC is rated at 3A. Each NAC expansion module is monitored for open-line and short-circuit conditions.

When installed on a Model FV922 or Model FV924 Cerberus PRO FACP, the releasing module contains an integral manual-disconnect switch for releasing circuits. This essential feature protects the releasing circuits from accidental discharge during maintenance.
Activation can be accomplished via cross zoning of automatic detectors or manual activation within one (1) FACP. A pre-discharge countdown timer is available for display at the operating unit (Model FCM2018-U3 or Model FCM2019-U3).

Remote Peripheral Module
[Model FCA2018-U1]

Remote Peripheral Module
(with RS–485 interface)

The Remote Peripheral Module (FCA2018-U1) provides a means of connecting a Cerberus PRO panel to a parallel printer for creating a hard copy of system-status and configuration reports. This supervised, intelligent module contains built-in transient protection and plain-decimal addressing.

Model FCA2018-U1 is remotely connected to the Model FCA2016-U1 RS–485 communication bus from any Cerberus PRO system enclosure.

Model FCA2018-U1 uses 'Class B' (Style 4) or 'Class A' (Style 6) wiring, and provides two (2) RS–232 (serial) ports and a single parallel port that allow connection to the parallel printer (Model PAL-1).

When Model PAL-1 is used with the remote peripheral module, Model FCA2018-U1 supervises the printer for *On / Off Line*, *Power On*, *Paper Out*, *Paper Jam*, and wiring-fault conditions, as required by ℓUL for NFPA 72 proprietary systems.

When Model PAL-1 is used with the remote peripheral module, Model FCA2018-U1 supervises the printer for *On / Off Line*, *Power On*, *Paper Out*, *Paper Jam*, and wiring-fault conditions, as required by ℓUL for NFPA 72 proprietary systems.

Event and report printing is generated at the operating unit (Model FCM2018-U3 or Model FCM2019-U3) on the main Cerberus PRO system.

[LED option]

[Blank option]

LED Option Module(s)

LED option modules provide LED annunciation of system activity. Model FCM2023-U3 can either be configured for up to 24 indicator zones, or for 48 individual LEDs. Each zone contains one (1) RED / GREEN bi-color LED and one (1) YELLOW LED.

Model FCM2034-U3 is the other version of the Cerberus PRO LED option module. Used exclusively in Canadian applications, Model FCM2034-U3 can also either be configured for up to 24 indicator zones, or for 48 individual LEDs. However, each zone contains one (1) RED / YELLOW bi-color LED and one (1) YELLOW LED.

Any event can be assigned to each LED, which may be configured as a 'static' or 'flashing' indicator using the Cerberus PRO custom-configurable software tool, 'Cerberus Works'. Normally, the LED indicator is used as a zone indicator.

The LED option module is connected to the peripheral data bus, and can be cascaded to up to a maximum of four (4) LED modules. A space is provided for labeling of LED functions. The label slides behind a clear, protective membrane.

Blank Option Module

Model FCM2022-U3 is a blank-option module intended to cover any blank LED areas where LED modules are not being occupied.

The Blank and LED Option Modules are mounted on the inner door of a Cerberus PRO enclosure. Any combination of modules may be mounted on the inner door. Up to four (4) total modules can be supported.

Temperature and Humidity Range

The Cerberus PRO Intelligent Voice Communication System is ®UL 864 9th Edition Listed for indoor dry locations within a temperature range of 120+/-3°F (49+/-2°C) to 32+/-3°F (0+/-2°C) and a relative humidity of 93+/-2% at a temperature of 90+/-3°F (32+/-2°C).

Details for Ordering

Model Number	Part Number	Description
EBA2001-U1	S54400-B140-A1	100W Booster Amplifier Kit, Black Consists of: one (1) main board; one (1) black enclosure and one (1) FP2011-U1
EBA2001-R1	S54400-B141-A1	100W Booster Amplifier Kit, Red Consists of: one (1) main board; one (1) red enclosure and one (1) FP2011-U1
EBA2004-A1	S54400-B137-A1	100W Booster Amplifier, Black
FCA2015-U1	S54400-A63-A1	Digital Alarm Communication Transmitter
FCA2016-U1	S54400-A39-A1	RS–485 Interface
FCA2018-U1	S54400-A65-A1	Remote Peripheral Module
FCA2031-A1	S54400-A153-A1	Module Ntwk. (MoNet) Connection Card
FCI2011-U1	S54400-A54-A1	Optional NAC Expansion Module
FCI2016-U1	S54400-A55-A1	Periphery Board, 252-pt. FACP
FCI2017-U1	S54400-A56-A1	Periphery Board, 504-pt. FACP
FCI2020-U1	S54400-A57-A1	Optional Leased-Line / City-Tie Module
FCM2018-U3	S54400-C40-A2	Operating Interface Unit
FCM2019-U3	S54400-C41-A2	Operating Interface Unit [with LED]
FCM2022-U3	S54400-C44-A2	Blank Option Module
FCM2023-U3	S54400-C45-A2	LED Option Module (Red / Green bi-color LED with one (1) standalone Yellow LED)
FCM2034-U3	S54400-C138-A1	LED Option Module (Red / Yellow bi-color LED with one (1) standalone Yellow LED)
FCM2035-U3	S54400-C140-A1	Operating Interface Unit [with LED] (used in Canadian fire-system applications)
FHA2044-U1	S54400-B167-A1	Battery Fixing Bracket (for the 100W Booster Amplifier)
FH2016-U1	S54400-B138-A1	Housing, Black (for the 100W Booster Amplifier)
FH2016-R1	S54400-B136-A1	Housing, Red (for the 100W Booster Amplifier)
FHA2031-U1	S54400-B44-A1	Optional DIN Rail Kit
FHA2041-R1	S54400-B93-A1	Three-Height-Unit Enclosure Cover, Red
FHA2042-U1	S54400-B55-A1	33AH Battery Bracket (for intelligent voice-communication FACPs)
FHA2043-U1	S54400-B56-A1	Three-Height-Unit Trim Kit, Black
FHA2043-R1	S54400-B57-A1	Three-Height-Unit Trim Kit, Red
FHB2005-U1	S54400-B110-A1	Three-Height-Unit Backbox, Black
FHB2005-R1	S54400-B110-A2	Three-Height-Unit Backbox, Red
FHD2004-U1	S54400-B52-A1	Inner Door, Black
FHD2005-U1	S54400-B53-A1	Inner Door, Solid Black
FHD2006-U1	S54400-C46-A1	Clear-Lens window
FHD2007-U3	S54400-B113-A1	Three-Height-Unit Outer Door [with three (3) windows], Black
FHD2007-R3	S54400-B113-A2	Three-Height-Unit Outer Door [with three (3) windows], Red
FHD2009-U1	S54400-B114-A1	Blank Plate [for 3HU enclosures], Black
FHD2009-R1	S54400-B114-A2	Blank Plate [for 3HU enclosures], Red

Details for Ordering – (continued)

Model Number	Part Number	Description
FN2001-U1	S54400-A60-A1	C-WEB Network Module
FN2012-A1	S54400-B152-A1	Modular Ethernet Switch
FP2012-U1	S54400-Z60-A1	300-Watt Power Supply
FT2014-U3	S54400-B80-A1	Remote Display Terminal, Black
FT2014-R3	S54400-B73-A1	Remote Display Terminal, Red
FT2015-U3	S54400-B88-A1	Remote Display Terminal, Black
FT2015-R3	S54400-B16-A1	Remote Display Terminal, Red
FTI2001-U1	S54400-A58-A1	Fire Terminal Board
VCA2002-A1	S54400-A47-A1	Voice System (4A) Card Cage
VCC2001-A1	S54400-A40-A1	Voice CPU Card
VCC2002-A1	S54400-A41-A1	Voice I/O Card
VCI2001-A1	S54400-A45-A1	Voice Amplifier (25V or 70V) Card
VCI2003-A1	S54400-A141-A1	VoIP Module
VN2001-A1	S54400-A42-A1	Electric Ethernet Module
VN2002-A1	S54400-A43-A1	Multi-Mode Ethernet Module
VN2003-A1	S54400-A44-A1	Single-Mode Ethernet Module
VTA2001-A1	S54400-F163-A1	'Class B' Remote Terminal Board
VTO2001-U3	S54400-C60-A2	Option Module, 24 switches
VTO2004-U3	S54400-C61-A2	Option Module, Microphone
XCI2001-U1	S54400-A69-A1	Releasing Module

Related Documentation

Model Number	Data Sheet Number	Description
OH921	9900	Multi-Criteria Fire Detector
HI921	9901	Thermal (Heat) Detector
OP921	9902	Photoelectric Smoke Detector
OP921	9902C	Photoelectric Smoke Detector (for Canada)
OOHC941	9903	Multi-Criteria Fire / CO Detector [with ASA*technology*™]
OOHC941	9903C	Multi-Criteria Fire / CO Detector [with ASA*technology*MC] (for Canada)
OOH941	9904	Multi-Criteria Fire Detector [with ASA*technology*™]
OOH941	9904C	Multi-Criteria Fire Detector [with ASA*technology*™] (for Canada)
FDCIO422	9905	4-Input / 4-Output Interface Module
FDCIO422	9905C	4-Input / 4-Output Interface Module (for Canada)
See: data sheet	9906	'FDBZ' Series Air-Duct Housings
See: data sheet	9906C	'FDBZ' Series Air-Duct Housings (for Canada)
See: data sheet	9907	'DB' Series Detector Base
See: data sheet	9907C	'DB' Series Detector Base (for Canada)
ABHW-4B	9909	Intelligent Audible (Sounder) Base
ABHW-4S	9910	Audible Base for Sleeping Areas

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NOTICE — The information contained in this data-sheet document is intended only as a summary, and is subject to change without notice. The devices described here have specific instruction sheets that cover various technical, limitation and liability information.

Copies of these instruction sheets and the *General Product Warning and Limitations* document, which also contains important information, are provided with the product and, are available from the Manufacturer.

Information contained in these documents should be consulted before specifying or using the product. For further information or assistance concerning particular problems contact the Manufacturer.

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